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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,299	07/28/2003	Duane E. Norby	4695-00084	3485
26753	7590	01/03/2006	EXAMINER	
ANDRUS, SCEALES, STARKE & SAWALL, LLP 100 EAST WISCONSIN AVENUE, SUITE 1100 MILWAUKEE, WI 53202			DUONG, THANH P	
			ART UNIT	PAPER NUMBER
			1764	
DATE MAILED: 01/03/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/628,299

Applicant(s)

NORBY ET AL

Examiner

Tom P. Duong

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 16 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 18-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/14/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-15 and 18-22, drawn to a serviceable exhaust aftertreatment device, classified in class 422, subclass 168.
- II. Claims 16-17, drawn to method for servicing exhaust aftertreatment device, classified in class 181, subclass 243.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus as claimed can be used to practice another and materially different process such as the use such aftertreatment device in purifying industrial gas waste stream other than diesel exhaust system.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Michael E. Taken on September 13, 2005 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-5 and 18-22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 16-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-2, 4-5, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Crothers, Jr. (5,169,604). Regarding claims 1, 4, and 8, Crothers discloses a

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serviceable exhaust aftertreatment device (catalytic converter) for diesel exhaust (exhaust gas) flowing axially along an axial flowpath from upstream to downstream (Figure 2), comprising an inlet cylindrical body providing an inlet section (24), a central cylindrical body (28) providing an exhaust aftertreatment central section, and an outlet cylindrical body (26) providing an outlet section, said cylindrical bodies being axially colinearly aligned along said axis, with said central cylindrical body axially between said inlet and outlet cylindrical bodies and removable therefrom for servicing, each of said cylindrical bodies having a main body outer profile of given outer diameter, said inlet cylindrical body mating with said central cylindrical body at a first junction (upstream overlapped section near flange element 32), said central cylindrical body mating (28) with said outlet cylindrical body at a second junction (downstream overlapped section near flange element 32), each of said junctions having an outer profile of increased outer diameter, the increase in outer diameter from said given outer diameter being less than 2%. Regarding claim 2, Crothers discloses the increase in outer diameter ranging from 1 to 2% being the fact that Figure 2 shows minimal increase in the outer diameter over the inner diameter at the overlapped section. Regarding claim 4, Crothers discloses the telescoping contact surfaces (upstream and downstream overlapped sections near flange elements 32) are joined and sealed without a gasket as shown in Figure 2. Regarding claim 5, Crothers discloses the inlet and central cylindrical bodies are mated and sealed at the first and second annulus (upstream and downstream annulus sections near flange element 32) as shown in Figure 2. Note, instant claim structurally reads on the apparatus of Nonnenmann.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Crothers '604. Crothers appears to disclose outer diameter with ranging from 7 to 13 inches and the increase in outer diameter is in the range of 0.125 inch being the fact that the catalytic converters are fabricated to be used in industrial and automotive applications (Col. 1, lines 10-22). In addition, it would have been obvious in view of Crothers to one having ordinary skill in the art to fabricate the catalytic reactor with any outer diameter size based on design requirement including the outer diameter of the claimed invention. Note, the court held that a mere change in size is within the level ordinary skill in the art. See *In re Rose*, 220 F.2d 459, 105, USPQ 237 (CCPA 1955).
3. Claims 6-7, 9-15, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crothers '604 in view of Foster et al. (4,239,733). Regarding claims 6-7 and 9-14, Crothers essentially discloses the claimed invention but fails to disclose first and second rigidizing beads upstream and downstream of the first annulus and third and fourth rigidizing beads upstream and downstream of the second annulus. Foster teaches a plurality of annular ribs (54,56) or beads upstream and downstream of

the annular ribs (58,60) to increase the housing stiffness and prevent the housing portions 38 and 50 from bulging out from heat or thermal expansion (Col. 4, lines 11-15). Thus, it would have been obvious in view of Foster to one having ordinary skill in the art to modify the catalytic converter of Crothers with rigidizing beads as taught by Foster in order to increase stiffness in the housing portions. With respect to the number of rigidizing beads and annulus, the above applied references disclose the rigidizing beads upstream and downstream of the annulus and it would have been obvious in view of the applied references to one having ordinary skill in the art to duplicate additional beads and annulus along the housing to further increase the strength of the housing, since it has been held by the court that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). With respect to the different radial height for the shoulders or beads, it would have been obvious in view of the applied references to one having ordinary skill in the art to change the size of the beads to obtain different radial height for the shoulders since it has been held by the court that a change in size is within the level of ordinary skill in the art. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Regarding claim 15, it would have been obvious in view of the applied references to one having ordinary skill in the art to duplicate additional central body with a plurality of cylindrical bodies, since it has been held by the court that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA

1960). Claims 18-22 recite limitations similar to claims 1-15; thus, claims 18-22 are rejected for the same reasons as applied to claims 1-15, above.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P. Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Duong
December 19, 2005



Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700